

PROCESS FOR PRODUCTION OF ULTRATHIN PROTECTIVE OVERCOATS

ABSTRACT OF THE DISCLOSURE

5

A multilayer coating of fullerene molecules is deposited on a substrate, and layers of the multilayer coating are removed leaving an approximate monolayer coating of fullerene molecules on the substrate. In some embodiments, a beam generator, such as an ion beam, electron beam or laser generator, produces a beam arranged to break the weaker fullerene-to-fullerene intermolecular bond of the multilayer coating and inadequate to break the stronger fullerene-to-substrate association/bond of the coating. The beam is directed at the multilayer coating to break the fullerene-to-fullerene intermolecular bond. In other embodiments, the monolayer of fullerene molecules is formed by applying a solvent to the multilayer coating to break the fullerene-to-fullerene intermolecular bond of the multilayer coating.

20